



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/563,911

01/10/2006

Matti Lahtinen

1503-0187PUS1

5631

2292 7590 10/29/2009
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

CARTER, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2875

NOTIFICATION DATE

DELIVERY MODE

10/29/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/563,911	Applicant(s) LAHTINEN, MATTI	
	Examiner WILLIAM J. CARTER	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanley (6,733,150) in view of Petell et al. (6,302,570)

With respect to claim 1, Hanley teaches a light-emitting diode illuminator (800) for a headgear (801) with a visor (808), the illuminator comprising: a light-emitting diode module (830) including a plurality of light-emitting diodes (832) arranged as a unitary module (Fig. 8); a frame (801) having a first end and second end, the plurality of light-emitting diodes being positioned adjacent to the first end for selectively emitting light there from (Fig. 8), an electronics control part (850) for controlling the light-emitting diode (832), the electronic control part including a switch (866), , wherein the light emitting diodes are fitted in the frame, side by side adjacent to each other (Fig. 8).

Hanley does not explicitly teach the switch being displaced towards the second end of the frame relative to the positioning of the light emitting diodes, the light-emitting diodes being directly operatively connected to the switch through the frame without the use of elongated wires, and wherein the light-emitting diodes and the switch are arranged integrally to the frame.

As for claim 1, Petell, also drawn to light-emitting diode illuminators for headgear (Fig. 1A), teaches a switch (277) being displaced (via 220) towards a second end (rear of 210) of a frame (210) relative to a positioning of a light emitting diode (290), the light-emitting diode being directly operatively connected to the switch (via 280) through the frame without the use of elongated wires (column 4, lines 8-11), and wherein the light-emitting diode and the switch are arranged integrally to the frame (Fig. 2A).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the frame and electrical configuration of Petell in the light-emitting diode illuminator of Hanley, in order to provide a much more compact illuminator (Fig. 2A and column 28-29).

As for claim 2, Hanley further teaches the light-emitting diode module (830) is provided with ultraviolet (UV) LEDs so that at least one so the LEDs are UV LEDs (column 5, lines 33-47)

As for claim 3, Hanley further teaches the light-emitting diode module (830) is also provide with infrared (IR) LEDs so that at least some of the LEDs are IR LEDs (column 5, lines 33-47).

As for claim 5, Hanley further teaches the illuminator is a water-tight encapsulated LED unit (1808). Although Hanley does not explicitly teach the water-tight seal is valued at an IP class 55 and upwards, one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that

Art Unit: 2875

the process would possess utility using another set of dimensions. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). See also MPEP 2144.04(IV)(B).

As for claim 6, Hanley further teaches different and differently color light-emitting diodes which work either together or separately (column 5, lines 33-47).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanley and Petell, as applied to claim 1, further in view of Lee (2002/0021566).

With respect to claim 11, Hanley and Petell teach all of the claimed elements, as discussed above, except for explicitly teaching the light emitting diode module includes a rectangular module frame outside of the frame, and the light-emitting diodes are disposed within the module frame. Lee, also drawn to LED illuminators for headgear with a visor, teaches a light emitting diode module (14) includes a rectangular module frame (144) outside (via 142) of a frame (141), and a light-emitting diode (Abstract) disposed within the module frame (Fig. 12). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the rectangular module frame of Lee in the LED illuminator of Hanley, in order to allow for aiming of the LED module (Fig. 12).

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5, 6, and 11 have been considered but are moot in view of the new ground(s) of rejection. The Applicant has amended claim 1 to include teach the switch being displaced towards the second end of the frame relative to the positioning of the light emitting diodes, the light-emitting diodes being directly operatively connected to the switch through the frame without the use of elongated wires, and wherein the light-emitting diodes and the switch are arranged integrally to the frame.

Because of the amendment, the rejection of claim 1 over Hanley has been changed to Hanley in view of Petell.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM J. CARTER whose telephone number is (571)272-0959. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571)272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2875

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William J Carter/
Examiner, Art Unit 2875
10/25/09